AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) Device for illuminating a line surface (3) having a light source (1, 9) designed linearly or being linearly arranged and having at least one linearly formed optical element (2, 10), wherein in the region of said optical elements (2, 10) of said light source (1, 9) said device comprises at least one diaphragm (6) which effects a variable numerical aperture in the direction of the line, in a manner calculated to substantially reduce vignetting produced by a natural decrease in light intensity associated with an imaging lens.

2. (previously presented) Device according to claim 1, wherein the variable numerical aperture is designed in such a manner that the vignetting (decrease in light intensity at the periphery), which occurs when imaging a line by means of a lens, is compensated according to $E(w) = E * \cos4(w)$.

3. (original) Device according to claim 2, wherein the diaphragm (6, 14) is made of a non-transmissive material.

4. (original) Device according to claim 2, wherein the diaphragm (6, 14) is made of a spectral transmissive material.

5. (previously presented) Device according to claim 2, wherein the diaphragm (6, 14) is made of a material having a combination of spectral transmissive and non-transmissive patterns.

6. (original) Device according to claim 2, wherein the diaphragm (6, 14) is made of a phase shifting structured material.

7. (previously presented) Device according to claim 1, wherein the variable numerical aperture is designed in such a manner that the vignetting (decrease in light intensity at the periphery), which occurs when imaging a line by means of a lens, is compensated according to a mathematical dependency.

8. (previously presented) Method for providing illumination of a surface, the method comprising:

providing a linearly arranged light source, including at least one optical element;

providing at least one diaphragm, in the region of said optical elements of said light source, which effects a variable numerical aperture in a longitudinal direction, in a manner calculated to substantially reduce vignetting produced by a natural decrease in light intensity associated with an imaging lens.

9. (previously presented) Method according to claim 8, comprising selecting the variable numerical aperture in such a manner to compensate for vignetting, which occurs when imaging a line by means of a lens, according to $E(w) = E * \cos4(w)$.

10. (previously presented) Method according to claim 8, comprising selecting the variable numerical aperture in such a manner to compensate for vignetting, which occurs when imaging a line by means of a lens, according to a mathematical dependency.

11. (currently amended) ~~Method~~ Device according to claim 1, comprising using a spectral transmissive material for the diaphragm.

12. (currently amended) ~~Method~~ Device according to claim 1, comprising using a material having spectral transmissive and non-transmissive patterns for the diaphragm.

13. (currently amended) ~~Method~~ Device according to claim 1, comprising using a a phase shifting structured material for the diaphragm.

14. (currently amended) ~~Method~~ Device according to claim 1, comprising selecting the diaphragm so as to compensate for vignetting, which occurs when imaging a line by means of a lens, according to a mathematical dependency.

15. (new) Device according to claim 1, further comprising said diaphragm provided as a curved edge or rim (7) in the region of said optical elements of said light source.

16. (new) Method according to claim 8, comprising providing said diaphragm as a curved edge or rim (7) in the region of said optical elements of said light source.